

FIGURE 1

	10	20	30	40	50
- SCRPL13PWT	M	S	H	R	K
- SCRPL13PRO	M	S	H	R	K
- SCRPL13PWT	A	P	R	H	G
- SCRPL13PRO	A	P	R	H	G
- SCRPL13PWT	L	G	F	L	P
- SCRPL13PRO	L	G	F	L	P
- SCRPL13PWT	K	R	A	A	S
- SCRPL13PRO	K	R	A	A	S
- SCRPL13PWT	I	R	A	R	V
- SCRPL13PRO	I	R	A	R	V
- SCRPL13PWT	A	V	T	V	D
- SCRPL13PRO	A	V	T	V	D
- SCRPL13PWT	T	P	P	V	V
- SCRPL13PRO	T	P	P	V	V
- SCRPL13PWT	G	G	V	V	G
- SCRPL13PRO	G	G	V	V	G
- SCRPL13PWT	V	E	T	P	R
- SCRPL13PRO	V	E	T	P	R
- SCRPL13PWT	G	L	R		
- SCRPL13PRO	G	L	R		
- SCRPL13PWT	L	S	D	E	V
- SCRPL13PRO	L	S	D	E	V
- SCRPL13PWT	K	R	R	Y	K
- SCRPL13PRO	K	R	R	Y	K
- SCRPL13PWT	K	K	A	F	T
- SCRPL13PRO	K	K	A	F	T
- SCRPL13PWT	K	Y	S	A	Y
- SCRPL13PRO	K	Y	S	A	Y
- SCRPL13PWT	A	Q	D		
- SCRPL13PRO	A	Q	D		
- SCRPL13PWT	G	A	G	I	E
- SCRPL13PRO	G	A	G	I	E
- SCRPL13PWT	R	E	L	A	R
- SCRPL13PRO	R	E	L	A	R
- SCRPL13PWT	I	K	K		
- SCRPL13PRO	I	K	K		
- SCRPL13PWT	A	S	V	R	V
- SCRPL13PRO	A	S	V	R	V
- SCRPL13PWT	L	V	H	T	Q
- SCRPL13PRO	L	V	H	T	Q
- SCRPL13PWT	I	R	K	T	P
- SCRPL13PRO	I	R	K	T	P
- SCRPL13PWT	L	A	Q	K	A
- SCRPL13PRO	L	A	Q	K	A
- SCRPL13PWT	L	A	E	I	Q
- SCRPL13PRO	L	A	E	I	Q
- SCRPL13PWT	L	N	G	G	S
- SCRPL13PRO	L	N	G	G	S
- SCRPL13PWT	I	S	E	K	V
- SCRPL13PRO	I	S	E	K	V
- SCRPL13PWT	D	W	A	R	E
- SCRPL13PRO	D	W	A	R	E
- SCRPL13PWT	H	F	E		
- SCRPL13PRO	H	F	E		
- SCRPL13PWT	K	T	V	A	D
- SCRPL13PRO	K	T	V	A	D
- SCRPL13PWT	S	V	F	E	Q
- SCRPL13PRO	S	V	F	E	Q
- SCRPL13PWT	N	E	M	I	D
- SCRPL13PRO	N	E	M	I	D
- SCRPL13PWT	A	I	A	V	T
- SCRPL13PRO	A	I	A	V	T
- SCRPL13PWT	X	G	H	G	F
- SCRPL13PRO	X	G	H	G	F
- SCRPL13PWT	E	G	V	T	H
- SCRPL13PRO	E	G	V	T	H
- SCRPL13PWT	R	W	G	T	K
- SCRPL13PRO	R	W	G	T	K
- SCRPL13PWT	K	L	P	R	K
- SCRPL13PRO	K	L	P	R	K
- SCRPL13PWT	T	H	R	G	L
- SCRPL13PRO	T	H	R	G	L
- SCRPL13PWT	K	V	A		
- SCRPL13PRO	K	V	A		
- SCRPL13PWT	C	I	G	A	
- SCRPL13PRO	C	I	G	A	
- SCRPL13PWT	H	P	A	N	H
- SCRPL13PRO	H	P	A	N	H
- SCRPL13PWT	S	V	A	R	A
- SCRPL13PRO	S	V	A	R	A
- SCRPL13PWT	G	R	G	Y	H
- SCRPL13PRO	G	R	G	Y	H
- SCRPL13PWT	S	R	T	S	I
- SCRPL13PRO	S	R	T	S	I
- SCRPL13PWT	N	H	K	I	Y
- SCRPL13PRO	N	H	K	I	Y
- SCRPL13PWT	R	V	K	G	D
- SCRPL13PRO	R	V	K	G	D
- SCRPL13PWT	D	E	A	N	G
- SCRPL13PRO	D	E	A	N	G
- SCRPL13PWT	A	T	S	F	D
- SCRPL13PRO	A	T	S	F	D
- SCRPL13PWT	T	K	K		
- SCRPL13PRO	T	K	K		
- SCRPL13PWT	I	P	M	G	G
- SCRPL13PRO	I	P	M	G	G
- SCRPL13PWT	F	V	H	Y	G
- SCRPL13PRO	F	V	H	Y	G
- SCRPL13PWT	E	I	K	N	D
- SCRPL13PRO	E	I	K	N	D
- SCRPL13PWT	I	M	V	K	G
- SCRPL13PRO	I	M	V	K	G
- SCRPL13PWT	C	I	P	G	N
- SCRPL13PRO	C	I	P	G	N
- SCRPL13PWT	R	R	K	I	V
- SCRPL13PRO	R	R	K	I	V
- SCRPL13PWT	T	L	R	K	S
- SCRPL13PRO	T	L	R	K	S
- SCRPL13PWT	L	T	N	T	S
- SCRPL13PRO	L	T	N	T	S
- SCRPL13PWT	R	K	A		
- SCRPL13PRO	R	K	A		

FIGURE 2

PRL3_RICE	10	20	30	40	50
RL3_YEAST	M S H R K E F P R H G S L G F L P R K R S S R H R K G K S F P K D D V S K P C H L T S F V G Y K				
	M S H R K E F P R H G S L G F L P R K R S S R H R K G K S F P K D D V S K P C H L T S F V G Y K				
	M S H R K E F P R H G S L G F L P R K R S S R H R K G K S F P K D D V S K P C H L T S F V G Y K				
PRL3_RICE	60	70	80	90	100
RL3_YEAST	A G M T I V R E V E K P G S K L H K K E T C E A V T I E T F P L V I V G L V A Y V K T P R G L R				
	A G M T I V R E V E K P G S K L H K K E T C E A V T I E T F P L V I V G L V A Y V K T P R G L R				
	A G M T I V R E V E K P G S K L H K K E T C E A V T I E T F P L V I V G L V A Y V K T P R G L R				
PRL3_RICE	110	120	130	140	150
RL3_YEAST	S L N S V M A Q H L S E V R R R F Y K N W C K S K K A F T K Y A L K Y D S D A G K K E I Q M Q L				
	S L N S V M A Q H L S E V R R R F Y K N W C K S K K A F T K Y A L K Y D S D A G K K E I Q M Q L				
	S L N S V M A Q H L S E V R R R F Y K N W C K S K K A F T K Y A L K Y D S D A G K K E I Q M Q L				
PRL3_RICE	160	170	180	190	200
RL3_YEAST	E K M K K V A S I V R V T A N T O I R K K G L K Q K K A H L M E I Q I N G G T I A D K V D Y G Y K				
	E K M K K V A S I V R V T A N T O I R K K G L K Q K K A H L M E I Q I N G G T I A D K V D Y G Y K				
	E K M K K V A S I V R V T A N T O I R K K G L K Q K K A H L M E I Q I N G G T I A D K V D Y G Y K				
PRL3_RICE	210	220	230	240	250
RL3_YEAST	F F E K E I P V D A V F Q K D E M I D I I G V T K G G Y E G V T H R M G T K K L P R K T H R G L R				
	F F E K E I P V D A V F Q K D E M I D I I G V T K G G Y E G V T H R M G T K K L P R K T H R G L R				
	F F E K E I P V D A V F Q K D E M I D I I G V T K G G Y E G V T H R M G T K K L P R K T H R G L R				
PRL3_RICE	260	270	280	290	300
RL3_YEAST	K V A C I G A C H P A V S Y T V A R A C Q N G Y H R T E M N K K V Y K I C K S G Q E S H A A C T				
	K V A C I G A C H P A V S Y T V A R A C Q N G Y H R T E M N K K V Y K I C K S G Q E S H A A C T				
	K V A C I G A C H P A V S Y T V A R A C Q N G Y H R T E M N K K V Y K I C K S G Q E S H A A C T				
PRL3_RICE	310	320	330	340	350
RL3_YEAST	F P D R T E S I T P H G G F P H Y G V V K G D Y L M I K G C C V G P K R V V T L R Q S L K Q T				
	F P D R T E S I T P H G G F P H Y G V V K G D Y L M I K G C C V G P K R V V T L R Q S L K Q T				
	F P D R T E S I T P H G G F P H Y G V V K G D Y L M I K G C C V G P K R V V T L R Q S L K Q T				
PRL3_RICE	360	370	380	390	
RL3_YEAST	S R L A L E S I K L K F I D T S S K F G H G R F O T T D E K O R F P G K I K A				
	S R L A L E S I K L K F I D T S S K F G H G R F O T T D E K O R F P G K I K A				
	S R L A L E S I K L K F I D T S S K F G H G R F O T T D E K O R F P G K I K A				

FIGURE 3

Broad host range plasmid Bin 19, complete sequence.
11777 bp

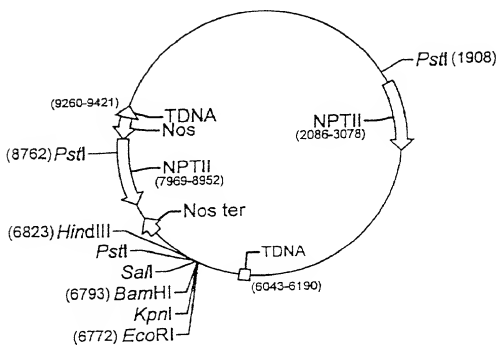


FIGURE 4

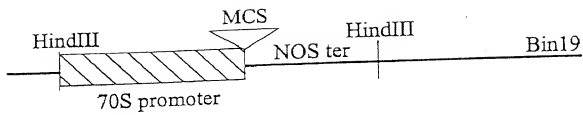


FIGURE 5A

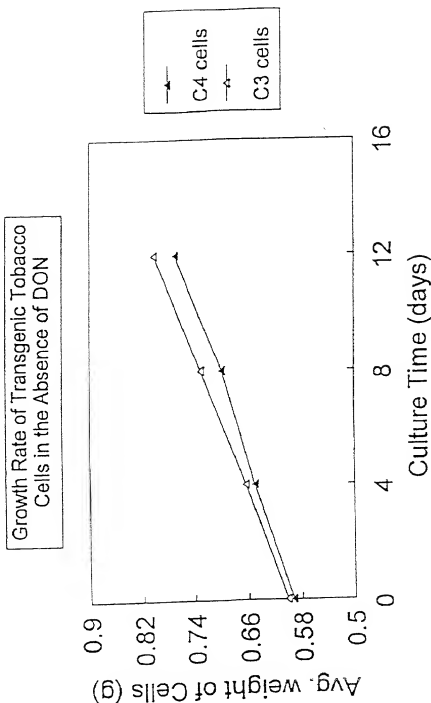
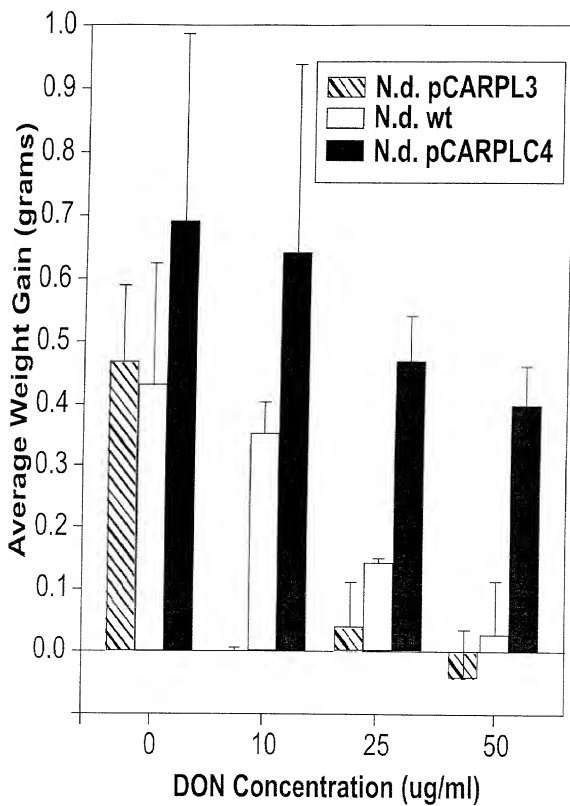


FIGURE 6



maize1.SEQ
maize2.SEQ
sorghum1.seq
sorghum2.seq
wheat.seq
barley.seq
oat.seq
rice.SEQ

[illegible]

maize1.SEQ
maize2.SEQ
sorghum1.seq
sorghum2.seq
wheat.seq
barley.seq
oat.seq
rice.SEQ

[illegible]

FIGURE 7C

FIGURE 7D

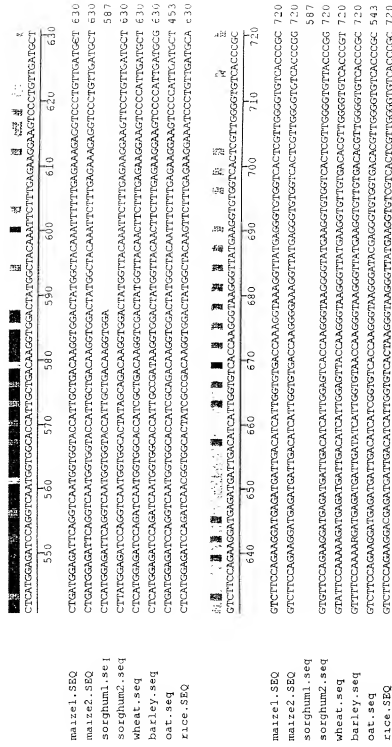
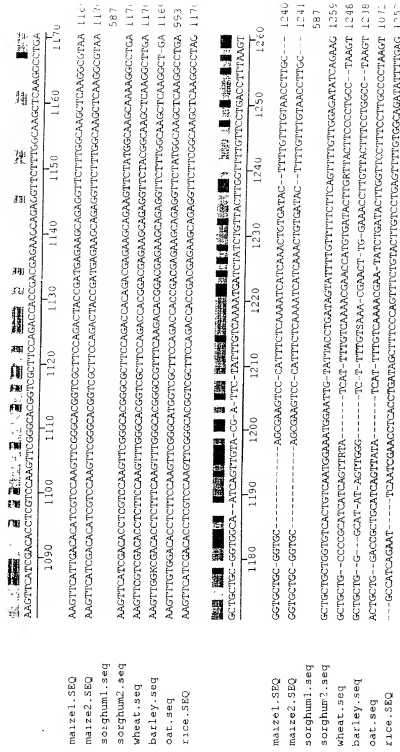


FIGURE 7G



4 6 8 10

TGTGTA---T---CTGATGTTTGTG-TAGTCGTG-GCCGTTTATGAAT-GGATGGTTTCATGTCGTG-G---TATGG-TTGCANATTTXAXAXXX

XXXXXXXXXX
XXXXXXXXXXXX

Accession	Length
maize1.SEQ	1281
maize2.SEQ	1282
sorghum1.seq	587
sorghum2.seq	1330
wheat.seq	1344
barley.seq	1319
oat.seq	1194
rice.SEQ	1337

FIGURE 8A

* * * * *
 maize MSHRKFEHPRHGS LGFLPRKRSSRHRGKVKSFPRDDPKKPCHLTAFL 47
 sorghum MSHRKFEHPRHGS LGFLPNKRSSRHRGKVKSFPRDDPKKPCHLTAFL
 wheat MSHRKFEHPRHGS LGFLPRKRSSRHRGKVKSFPRDDQSKPCHLTAFL
 barley MSHRKFEHPRHGS LGFLPRKRCSRHRGKVKAFPRDDQSKKCHLTAFL
 oat
 rice MSHRKFEHPRHGS LGFLPRKRSSRHRGKVKSPKDDVSKPCHLTSFV

* * * * *
 maize GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT 95
 sorghum GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT
 wheat GYKAGMTHIVREVEKPGSKLHKKETCEAVTIVETPPLVIVGLVAYVKT
 barley GYKAGMTHIVREVEKPGSKLHKKETCEAVTIVETPPIVIVGLVAYVKT
 oatWHEPGSKLHKKETCEAVTIVETPPIVIVGLVAYVKT
 rice GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT

* * * * *
 maize PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYENDA 141
 sorghum PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA
 wheat PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA
 barley PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA
 oat PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA
 rice PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA

* * * * *
 maize GKKEIQLQLEKMKKYASV IRVIAHTQIRKMKGLKQKKAHLMEIQVNG188
 sorghum GKKEIQLQLEKMKKYASV IRVIAHTQIRKMKGLKQKKAHLMEIQVNG
 wheat GKKEIQLQLEKMKKYASVVRVIAHTQIRKMKGLKQKKAHLMEIQVNG
 barley GKKEIQMLEKMKKYATVVRVIAHTQIRKMKGLKQKKAHLMEIQING
 oat GKKEIQLQLEKMKKYGTV IRVIAHTQIRKMKGLKQKKAHLMEIQVNG
 rice GKKEIQMLEKMKKYASI VRVIAHTQIRKMKGLKQKKAHLMEIQING

* * * * *
 maize GTIADKVDYGYKFFEKEVPVDAVFQKDEMIDIIGVTKGKGYGEGVVTR 235
 sorghum GTIADKVDYGYKFFEKEVPVDAVFQKDEMIDIIGVTKGKGYGEGVVTR
 wheat GTIADKVDYGYNFFEKEVPVDAVFQKDEMIDIIGVTKGKGYGEGVVTR
 barley GTIADKVDYGYNFFEKEVP IDAVFQKDEMIDIIGVTKGKGYGEGVVTR
 oat GTIADKVDYGYNFFEKEVP IDAVFQKDEMIDIIGVTKGKGYGEGVVTR
 rice GTIADKVDYGYKFFEKE IPVDAVFQKDEMIDIIGVTKGKGYGEGVVTR

FIGURE 8B

maize	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	280
sorghum	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
wheat	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
barley	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
oat	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
rice	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	

	* * * * *		* *
maize	MNKKVYKIGKAGQETHDASTEFDRTEKDITPMGGFPHYG IVKGDYL	326	
sorghum	MNKKVYKIGKAGQESHASTEFDRTEKDITPMGGFPHYG IVKGDYL		
wheat	MNKKVYKIGKVGQETHDASTEFDRTEKDITPMGGFPHYGVVKGDYL		
barley	MNKKVYKIGKVGQETHDASTEFDRTEKDITPMGGFPHYGVVKADYL		
oat	MNKK IYKIGKVGQETHDASTEFDRTEKDITPMGGFPHYGVVKGDYL		
rice	MNKKVYKIGKSGQESHAACTEFDRTEKDITPMGGFPHYGVVKGDYL		

	* * * *	
maize	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLF IDTSSKFGHGRF	374
sorghum	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLF IDTSSKFGHGRF	
wheat	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLFVDTSSKFGHGRF	
barley	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLKLXDTSEKFGHGRF	
oat	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLFVDTSSKFGHGRF	
rice	MIKGCCVGPKKRVVTLRQSLKQTSRLALEEIKLF IDTSSKFGHGRF	

	* * * * *	
maize	QTTDEKQRFFGKLKA	389
sorghum	QTTDEKQKFYGKQKA	
wheat	QTTDEKQRFFGKLKA	
barley	QDTDEKQRFFGKLKAELLG	
oat	QTTDEKQRFYGKLKA	
rice	QTTDEKQRFFGKLKA	

